

Blood pressure and cholesterol control in the general population

To the editor I have read with great interest the new paper by Niklas et al.¹ Indeed, the authors should be congratulated for another important analysis of data from the WOBASZ II (Multicenter National Population Health Examination Survey; Polish, Wieloośrodkowe Ogólnopolskie Badanie Stanu Zdrowia Ludności). As hypertension and hypercholesterolemia are considered the major factors influencing population health in developed countries, results of Niklas et al.¹ (only 5% of the participants had both blood pressure and cholesterol well controlled) should be seen as alarming.²

Niklas et al.³ analyzed the potential reasons that could have been responsible for low control rate of the 2 analyzed diseases. According to the previously published data, 41% of the WOBASZ II surveyed participants with hypertension were not aware of the disease. The corresponding proportion for hypercholesterolemia was 61%.⁴ Is it possible to present the proportion of the study participants with hypertension and hypercholesterolemia who were aware of the diseases? The proportion of the study participants not aware among those with uncontrolled hypertension and hypercholesterolemia would be of special interest. Indeed, if this proportion occurred to be high, it could be seen as another reason for more intensive screening programs in Poland. However, if the proportion was rather low, it would mean more emphasis should probably be given to counteract low adherence and persistence of patients as well as inertia of physicians.

Niklas et al.¹ showed that patients with cardiovascular disease have a 2-fold higher probability of well controlled hypertension and hypercholesterolemia. Although this figure agrees with the previously published data from secondary prevention surveys, it should be highlighted that even among patients with the highest cardiovascular risk, that is, those with established coronary artery disease, the control of risk factors is insufficient.⁵ Considering all the available data, there is a considerable potential for reduction of cardiovascular risk in Poland, and the preventive cardiology should become an important priority for the policymakers.

ARTICLE INFORMATION

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CONFLICT OF INTEREST PJ received honoraria and grants from Amgen, KRKA, Pfizer, Sanofi-Aventis, Servier, Zentiva.

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HOW TO CITE Jankowski P. Blood pressure and cholesterol control in the general population. *Pol Arch Intern Med.* 2020; 130: 258. doi:10.20452/pamw.15261

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Authors' reply Introduction We would like to thank Prof. Jankowski for his interesting comment¹ to our article on blood pressure and cholesterol control in patients with hypertension and hypercholesterolemia, published in the December issue of *Polish Archives of Internal Medicine (Pol Arch Intern Med)*.² Although efficacious treatment for hypertension and hypercholesterolemia is available, achieving control over these 2 modifiable risk factors is still a serious problem not only in Poland but also in most other countries as well.^{1,3-5} Encouraged by Prof. Jankowski, we reanalyzed data of 2037 participants of the WOBASZ II (Multicenter National Population Health Examination Survey; Polish,

TABLE 1 Awareness and control of hypertension and hyperlipidemia in the WOBASZ II participants with both conditions (age range, 19–99 years)

			Awareness									
			Neither HT nor HL		HT only		HL only		HT and HL		Total	
			n	%	n	%	N	%	n	%	n	%
Control	Neither HT nor HL	n	450	32.7	352	25.6	153	11.1	420	30.5	1375	100
		%	100		69.2		93.9		45.9		67.5	
	HT only	n	0	0	157	38.2	0	0	254	61.8	411	100
		%	0		30.8		0		27.8		20.2	
	HL only	n	0	0	0	0	10	10	90	90	100	100
		%	0		0		6.1		9.8		4.9	
	HT and HL	n	0	0	0	0	0	0	151	100	151	100
		%	0		0		0		16.5		7.4	
	Total	n	450	22.1	509	25	163	8	915	44.9	2037	100
		%	100		100		100		100		100	

Abbreviations: HL, hypercholesterolemia; HT, hypertension

Wieloośrodkowe Ogólnopolskie Badanie Stanu Zdrowia Ludności⁶ study with coexisting hypertension and hypercholesterolemia to describe an interrelation between awareness and control of these conditions.

Results Detailed information on the awareness and control of hypertension and hypercholesterolemia is presented in [TABLE 1](#). Out of 2037 people with coexisting hypertension and hypercholesterolemia, 22.1% did not know that they had lipid and blood pressure above the recommended level. Out of 672 participants (33%) who were informed about having 1 of the 2 factors studied, about three-fourth had been informed on hypertension and about one-fourth on hypercholesterolemia. Among all participants informed about having hypertension (n = 1424), the percentage of those achieving hypertension treatment goals was higher than the percentage of persons achieving hypercholesterolemia treatment goals among 1078 participants informed about having hypercholesterolemia (39.5% and 23.3%, respectively). Out of 915 participants (30.5%) informed about having both hypertension and hypercholesterolemia, 44.3% achieved the goals of hypertension treatment, and 26.3% achieved the goals of hypercholesterolemia treatment. However, only 16.5% achieved treatment goals for both hypertension and hypercholesterolemia, and as much as 45.9% did not achieve any treatment goals. The effectiveness of treatment of the hypertension and hypercholesterolemia was higher in participants informed about having both conditions as compared with those who were informed about having only 1. In participants informed about hypertension only, the goal for hypertension treatment was achieved by 30.8%, and in participants informed about hypercholesterolemia only, the goal of hypercholesterolemia treatment was achieved by 6.1%.

In the entire sample (n = 2037), both treatment goals for hypertension and hypercholesterolemia were achieved only by 7.4%. Additionally, the goal

of hypertension treatment only was achieved by 20.2%, and another 4.9% achieved the goal of hypercholesterolemia treatment only. Over two-thirds of people (67.5%) with hypertension and hypercholesterolemia did not achieve any of the 2 treatment goals.

Discussion An alarming conclusion from our findings is that only 7.4% of persons who had coexisting hypertension and hypercholesterolemia had both of these risk factors well controlled. It is obvious that the most important cause of the poor control of hypercholesterolemia and hypertension in Poland is insufficient detection, which is followed by a combined effect of wrong prescription practices, insufficient compliance to treatment, and drug intolerance. According to our previous report, less than 15% of patients treated for hypercholesterolemia were on high or moderate doses of statins.⁵ Effectiveness of hypertension control seems to be better, but still, about 77% of persons with hypertension do not achieve treatment goals.⁴

The prevalence of coexisting HT and hypercholesterolemia in about one-third of the general population² and poor control of both risk factors in persons aware of having hypertension and/or hypercholesterolemia supports the recommendation to use the single-pill combination of hypotensive and hypolipemic agents. However, it is important to remember that lifestyle modification, mainly maintaining desirable physical activity and diet, are the key factors that not only facilitate control of hypercholesterolemia and hypertension but also prevent their occurrence.⁷

Conclusions The example of poor control of coexisting hypercholesterolemia and hypertension calls for comprehensive national strategy of the prevention of cardiovascular disease, which would include lifestyle modification, detection of risk factors followed by an intensive efficacious intervention that would include the best available pharmacological treatments.

ARTICLE INFORMATION

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CONFLICT OF INTEREST AP received consultation honoraria from Amgen (not directly related to the present paper).

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HOW TO CITE Niklas A, Pająk A, Kozela M, et al. Blood pressure and cholesterol control in the general population. Author's reply. *Pol Arch Intern Med.* 2020; 130: 258-260. doi:10.20452/pamw.15262

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